

In the Claims:

Please amend claim 1 as follows. Please add new claims 119-131 as shown.

1. (Currently amended) A method comprising:

allowing a chemical or biological species and oligonucleotide identifier, immobilized ~~relative to~~ on a common surface, to participate in a chemical or biological interaction; and  
determining participation of the chemical or biological species in the chemical or biological interaction by identifying ~~on the~~ the oligonucleotide identifier associated with the surface.

2-118. (Canceled)

119. (New) The method in claim 1, wherein the surface comprises gold.

120. (New) The method as in claim 119, wherein the surface is a surface of a gold colloid particle.

121. (New) The method as in claim 120, wherein the chemical or biological species is immobilized on the surface via a self-assembled monolayer.

122. (New) The method as in claim 1, wherein the chemical or biological species is fastened to the surface via a metal binding tag/metal/chelate linkage.

123. (New) The method as in claim 1, wherein, during the allowing step, the oligonucleotide identifier is fastened to the surface, the determining step comprising separating the oligonucleotide identifier from the surface and then identifying the oligonucleotide identifier.

124. (New) The method as in claim 123, wherein, during the allowing step, the oligonucleotide identifier is fastened to the surface via a self-assembled monolayer.

125. (New) The method as in claim 123, comprising identifying the oligonucleotide identifier via fluorescent sequencing.

126. (New) The method as in claim 1, the allowing step comprising allowing a first species, fastened to a first surface, to biologically bind to a second species fastened to a second surface;

determining immobilization of the first surface relative to the second surface;

and

identifying the species fastened to the second surface by identifying an oligonucleotide identifier which was fastened to the surface of the second article during the allowing step.

127. (New) The method as in claim 126, wherein each of the first and second articles is a colloid particle.

128. (New) The method as in claim 1, comprising identifying the oligonucleotide identifier by identifying a complementary oligonucleotide having a first portion complementary to the

oligonucleotide identifier and a second portion complementary to a second oligonucleotide identifier.

129. (New) The method as in claim 1, comprising allowing a first chemical or biological species, immobilized relative to a surface of a first article, to chemically or biologically interact with a second chemical or biological species, immobilized relative to a surface of a second article; and

determining the chemical or biological interaction by identifying an interaction hybridization identifier that is complementary to a combination of a first oligonucleotide identifier fastened to the surface of the first article and a second oligonucleotide identifier fastened to the surface of the second article.

130. (New) The method as in claim 129, comprising providing a first colloid particle, a first species fastened to the first colloid particle, and a first oligonucleotide identifier fastened to the first colloid particle, a second colloid particle, a second species fastened to the second colloid particle, and a second oligonucleotide identifier fastened to the second colloid particle;

allowing the first and second species to biologically bind, thereby immobilizing the first and second colloid particles relative to each other and bringing the first oligonucleotide identifier into proximity with the second oligonucleotide identifier;

exposing the first and second oligonucleotide identifiers to an interaction hybridization identifier that is complementary to the combination of the first and second oligonucleotide identifiers and allowing the interaction hybridization identifier to bind to the first and second oligonucleotide identifier; and

identifying the interaction hybridization identifier thereby identifying the first and second oligonucleotide identifiers and thereby identifying the biological binding.

131. (New) The method as in claim 130 comprising, prior to the identifying step, deactivating any non-hybridized oligonucleotide.